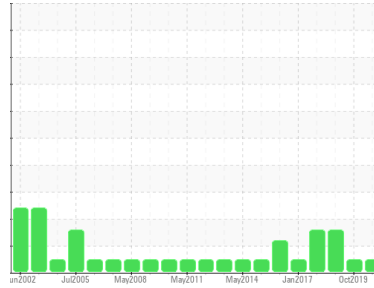


Area
Main Power Generation [450191502]
 Machine Id
Generator - MPG (Port) Starting Engine Crank Case (S/N Sample Tag XX-80201-S2)
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON MOTOR OIL SAE 40 (37 LTR)



DIAGNOSIS

Recommendation
 Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear
 All component wear rates are normal.

Contamination
 There is no indication of any contamination in the oil.

Fluid Condition
 Additive levels indicate the addition of a different brand, or type of oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PC0052563	PC	PC
Sample Date	Client Info	22 Aug 2023	31 Oct 2019	07 Jun 2019
Machine Age	hrs	0	0	0
Oil Age	hrs	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		NORMAL	NORMAL	ABNORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	<1.0
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >100	11	4	7
Chromium	ppm ASTM D5185(m) >20	<1	<1	0
Nickel	ppm ASTM D5185(m) >4	0	0	0
Titanium	ppm ASTM D5185(m)	0	<1	0
Silver	ppm ASTM D5185(m) >3	<1	0	0
Aluminum	ppm ASTM D5185(m) >20	1	<1	<1
Lead	ppm ASTM D5185(m) >40	2	<1	3
Copper	ppm ASTM D5185(m) >330	3	1	1
Tin	ppm ASTM D5185(m) >15	1	<1	<1
Antimony	ppm ASTM D5185(m)	0	<1	0
Vanadium	ppm ASTM D5185(m)	0	0	0
Beryllium	ppm ASTM D5185(m)	0	0	0
Cadmium	ppm ASTM D5185(m)	0	0	<1

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 1.0	2	<1	<1
Barium	ppm ASTM D5185(m) 1.0	0	0	0
Molybdenum	ppm ASTM D5185(m) 1.0	6	2	3
Manganese	ppm ASTM D5185(m) 1	<1	<1	<1
Magnesium	ppm ASTM D5185(m) 15	936	928	825
Calcium	ppm ASTM D5185(m) 2540	1004	1074	1156
Phosphorus	ppm ASTM D5185(m) 1000	1148	1132	1059
Zinc	ppm ASTM D5185(m) 1110	1242	1267	1219
Sulfur	ppm ASTM D5185(m) 3700	2762	2953	2951
Lithium	ppm ASTM D5185(m)	<1	<1	0

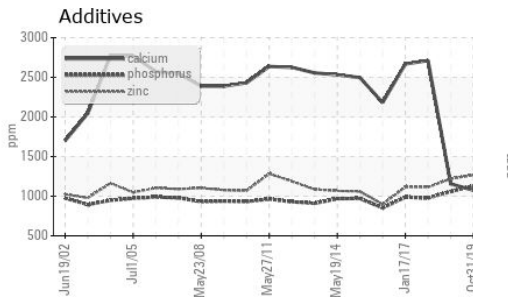
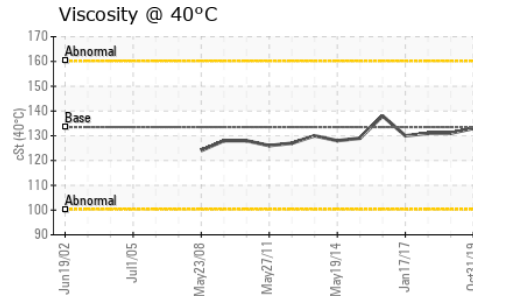
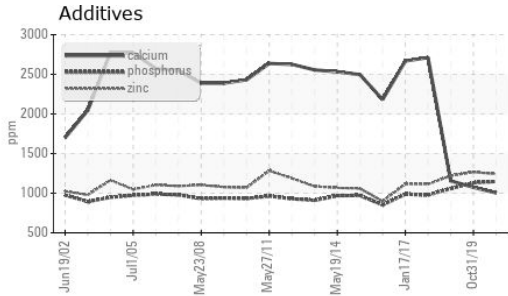
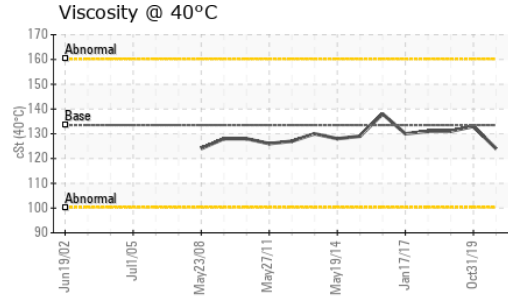
CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	21	21	▲ 34
Sodium	ppm ASTM D5185(m)	2	0	1
Potassium	ppm ASTM D5185(m) >20	<1	<1	<1

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	0	0	0
Nitration	Abs/cm ASTM D7624* >20	3.3	3.8	3.7
Sulfation	Abs./1mm ASTM D7415* >30	12.9	15.3	14.1

OIL ANALYSIS REPORT

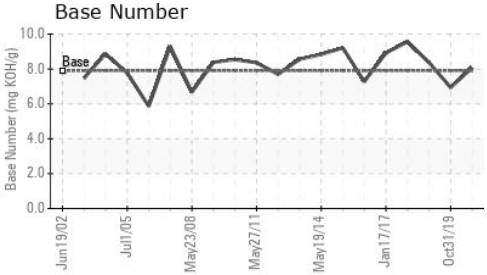
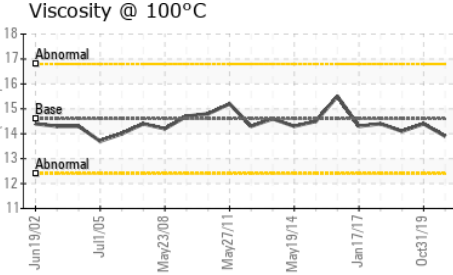
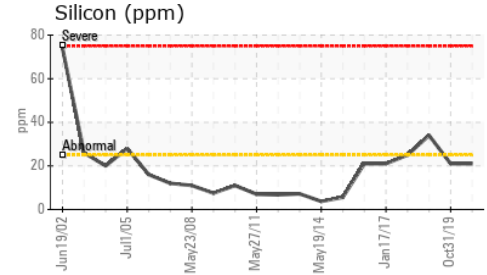
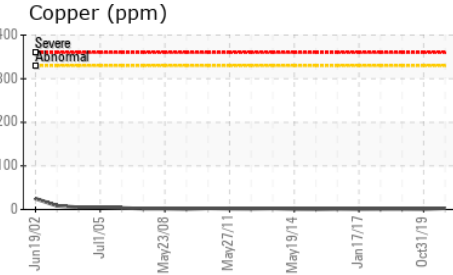
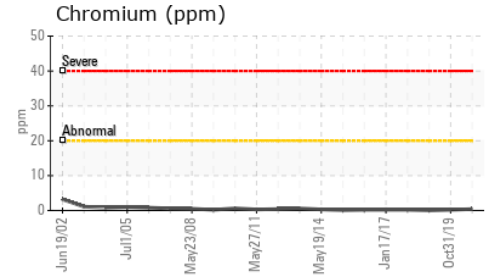
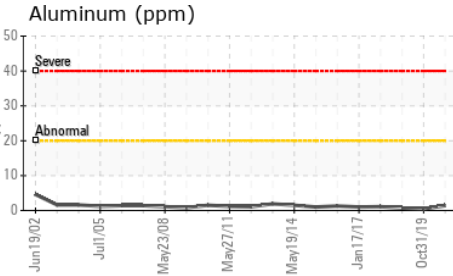
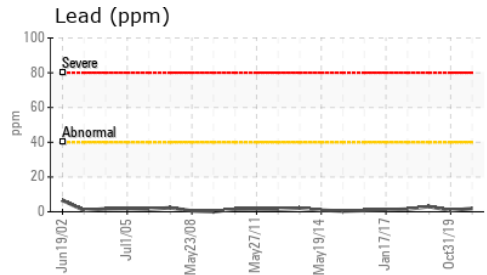
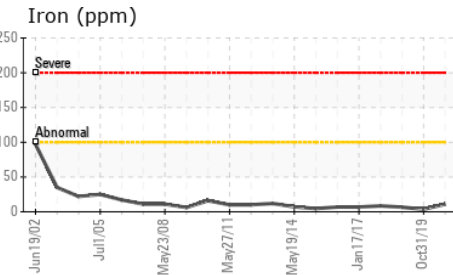


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	6.7	6.4	6.9
Base Number (BN)	mg KOH/g	ASTM D2896*	7.9	8.07	6.94	8.37

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	133.5	124	133	131
Visc @ 100°C	cSt	ASTM D7279(m)	14.6	13.9	14.4	14.1
Viscosity Index (VI)	Scale	ASTM D2270*	109	109	107	105

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0052563 **Received** : 13 Sep 2023
Lab Number : 02581999 **Diagnosed** : 14 Sep 2023
Unique Number : 5643064 **Diagnostician** : Kevin Marson
Test Package : MOB 2 (Additional Tests: KV40, VI)

Suncor - Terra Nova Projects
 Scotia Centre, 235 Water Street
 St. John's, NL
 CA A1C 1B6
 Contact: Josh Hynes
 joshhynes@suncor.com
 T: (709)778-3575
 F: (709)724-2835

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.